DATASHEET

AXIS Q16 Network Camera Series

Outstanding image performance in demanding lighting conditions.

- > Lightfinder technology with extended D1 (768x576) resolution (AXIS Q1602/-E)
- > WDR with dynamic capture at HDTV 720p (AXIS Q1604/-E)
- > Multiple H.264 video streams
- > Power over Ethernet
- > Outdoor-ready model with Arctic Temperature Control

AXIS Q16 Network Camera Series comprises of indoor and outdoor-ready fixed cameras that deliver outstanding image quality in demanding video surveillance conditions, such as poor light or highly variable lighting.

The unique Lightfinder technology makes AXIS Q1602/-E cameras extremely sensitive to low light, effectively allowing the cameras to 'see' even in dark conditions. The Wide Dynamic Range with 'dynamic capture' allows AXIS Q1604/-E to provide homogeneous images, without too dark or too bright parts.

AXIS Q16 Series ranges from extended D1 resolution cameras to 1-megapixel AXIS Q1604 and AXIS Q1604-E cameras, which also provide HDTV 720p video.

Installation is made easy with Power over Ethernet (PoE, IEEE 802.3af), which eliminates the need for power cables. The cameras also have an SD/SDHC memory card slot for storing recordings locally.

The IP66-rated outdoor-ready models, AXIS Q1602-E and AXIS Q1604-E cameras, operate in temperatures from -40 °C to 50 °C (-40 °F to 122 °F) using High PoE. They feature Axis' unique Arctic Temperature Control to pre-heat the camera module for securing start up even at very low temperatures following a power failure.

Low-light sensitive and wide dynamic range cameras for indoor and outdoor use

AXIS Q16 Series offers outstanding fixed network cameras with features to handle demanding application requirements. AXIS Q1602/-E are suitable for environments with poor light conditions, and AXIS Q1604/-E are suitable for surveillance in highly variable lighting conditions.

Easy installation with focus assistant, remote back focus and pixel counter

Setting the focus on AXIS Q16 Series is made easy with the focus assistant, which indicates with a flashing green LED when an image is in focus after manually adjusting the lens. Additionally, it offers remote back focus, which allows the focus to be fine-tuned from a computer. The pixel counter further helps the installer verify that the pixel resolution of an object fulfills regulatory or customer requirements, for example, for facial identification.

Lightfinder technology

AXIS Q1602/-E incorporate Axis' revolutionary Lightfinder technology. The outstanding performance in low light is the result of well-founded decisions regarding the sensor and lens combined with carefully tuned image processing. Compared with any analog or network cameras, the Lightfinder technology will give more life-like colors in low-light conditions. The noise reduction of the Lightfinder technology is vastly improved compared with any surveillance camera on the market, which in combination with the light sensitivity of the sensor gives a superior image quality. For more on Lightfinder technology, go to:
www.axis.com/corporate/corp/tech_papers.htm

Wide Dynamic Range – dynamic capture

AXIS Q1604/-E Network Cameras with 'dynamic capture' offer ideal solutions for surveillance in highly variable lighting conditions, for instance when light comes through a glass window or entrance creating both dark and bright zones. In these demanding scenarios, AXIS Q1604/-E allow the user to easily and clearly identify both people and objects. Together with advanced image processing, the result is video with exceptional clarity and sharpness, ensuring that no part of the image is too dark or too bright.

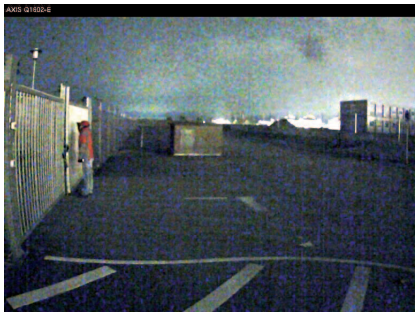
Outdoor-ready models

AXIS Q16-E Network Cameras save installation time and costs since they are ready out of the box for mounting outdoors. The IP66-rated cameras have protection against dust, rain, snow and sunlight, and can operate in temperatures as low as -40 °C (-40 °F). The cameras are powered by Power over Ethernet, which makes installation easy since there is no need for a separate power cable. An integrated dehumidifying membrane eliminates humidity caught in the camera enclosure during installation. The cameras enable easy mounting of an infrared illuminator under the enclosure. They come with a wall mount bracket and a sunshield.

Lightfinder technology with AXIS Q1602/-E Network Cameras

Reference image

High-end surveillance camera



AXIS Q1602/-E Network Cameras

Technical Specifications – AXIS Q16 Network Camera Series

Camera	
Models	**AXIS Q1602:** Extended D1 (768x576) resolution, indoor **AXIS Q1602-E:** Extended D1 (768x576) resolution, outdoor **AXIS Q1604:** 1 MP/HDTV 720p, indoor **AXIS Q1604-E:** 1 MP/HDTV 720p, outdoor
Image sensor	**AXIS Q1602/-E:** Progressive scan RGB CMOS 1/3" **AXIS Q1604/-E:** Progressive scan RGB CMOS 1/3"
Lens	DC-iris, IR corrected, CS-mount **AXIS Q1602/Q1604:** Varifocal 2.8 - 8 mm: 100° - 34° view*, F1.2 **AXIS Q1602-E/Q1604-E:** Varifocal 2.8 - 8 mm: 80° - 34° view*, F1.2 *horizontal angle of view Support for P-Iris lens
Day and night	Automatically removable infrared-cut filter
Minimum illumination	**AXIS Q1602/-E:** Color: 0.05 lux, F1.2, B/W: 0.008 lux, F1.2 **AXIS Q1604/-E:** Color: 0.1 lux, F1.2, B/W: 0.02 lux, F1.2 Color: 0.4 lux, F1.2, B/W: 0.06 lux, F1.2 with dynamic capture
Shutter time	**AXIS Q1602/-E:** 1/29500 s to 2 s **AXIS Q1604/-E: 1/192 s to 1/37 s with dynamic capture and power line frequency 50 Hz, 1/231 s to 1/44 s with dynamic capture and power line frequency 60 Hz, 1/24500 s to 2 s with power line frequency 50 Hz, 1/29500 s to 2 s with power line frequency 60 Hz**
Video	
Video compression	H.264 Main and Baseline Profile (MPEG-4 Part 10/AVC) Motion JPEG
Resolutions	**AXIS Q1602/-E:** 768x576 to 160x90 **AXIS Q1604/-E:** 1280x960* (1 MP) to 160x90 *1400x1050 (1.4 MP) scaled resolution available via VAPIX®
Frame rate H.264	**AXIS Q1602/-E:** 30 fps in all resolutions **AXIS Q1604/-E:** 30 fps in 60Hz capture mode, 25 fps in 50Hz capture mode
Frame rate Motion JPEG	**AXIS Q1602/-E:** 30 fps in all resolutions **AXIS Q1604/-E:** 30 fps in 60Hz capture mode, 25 fps in 50Hz capture mode
Video streaming	Multiple, individually configurable streams in H.264/Motion JPEG Controllable frame rate and bandwidth VBR/CBR H.264
Image settings	Compression, color, brightness, sharpness, contrast, white balance, exposure control, exposure zones, backlight compensation, fine tuning of behavior at low light, wide dynamic range - dynamic contrast **AXIS Q1604/-E:** WDR: Up to 120dB (0.4 - 400,000 lux) depending on scene **AXIS Q1602/Q1604:** Rotation: 0°, 90°, 180°, 270° and Corridor Format Text and image overlay, privacy mask and mirroring of images
Audio	
Audio streaming	Two-way
Audio compression	AAC LC 8/16 kHz G.711 PCM 8 kHz G.726 ADPCM 8 kHz Configurable bit rate
Audio input/ output	External microphone input or line input, line output **AXIS Q1602/Q1604:** Built-in microphone (can be disabled)
Network	
Security	Password protection, IP address filtering, HTTPS encryption**, IEEE 802.1X network access control**, digest authentication, user access log
Supported protocols	IPv4/v6, HTTP, HTTPS**, SSL/TLS**, QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, Bonjour, UPnP™, SNMPv1/v2c/v3(MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS

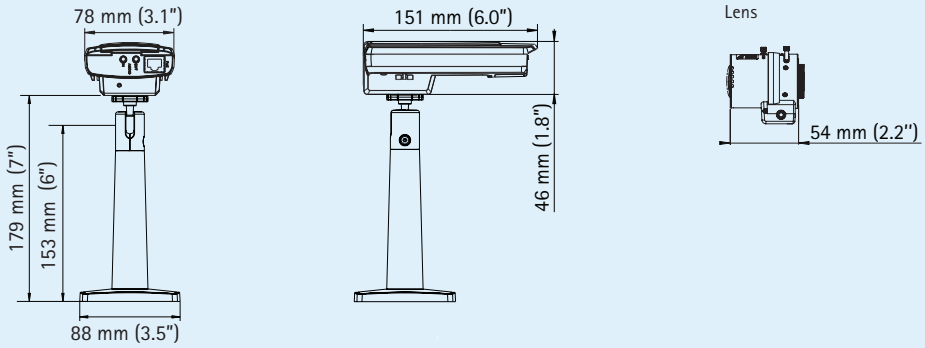
System integration	
Application Programming Interface	Open API for software integration, including the ONVIF specification available at www.onvif.org, as well as VAPIX® and AXIS Camera Application Platform from Axis Communications, specifications available at www.axis.com Support for AXIS Video Hosting System (AVHS) with One-Click Camera connection
Intelligent video	Video motion detection, active tampering alarm, audio detection Support for AXIS Camera Application Platform enabling installation of additional applications
Event triggers	Intelligent video, external input, edge storage events
Event actions	File upload: FTP, HTTP, network share and email Notification: email, HTTP and TCP External output activation Video and audio recording to edge storage Pre- and post-alarm video buffering Play audio clip
Data streaming	Event data
Built-in installation aids	Focus assistant, remote back focus, pixel counter
General	
Casing	Camera: Metal (zinc) **AXIS Q1602-E/Q1604-E:** IP66- and NEMA 4X-rated, IK10 impact resistant aluminum enclosure with integrated dehumidifying membrane. Color: white NCS S 1002-B
Memory	256 MB RAM, 128 MB Flash
Power	**AXIS Q1602/Q1604:** 8-20 V DC or Power over Ethernet (PoE) IEEE 802.3af **AXIS Q1602:** max. 6.5 W, PoE Class 3 **AXIS Q1604:** max. 6.9 W, PoE Class 3 **AXIS Q1602-E/Q1604-E:** PoE IEEE 802.3af max. 12.95 W or High PoE max 25.5 W
Connectors	RJ-45 10BASE-T/100BASE-TX PoE Terminal block for 1 alarm input and 1 output 3.5 mm mic/line in, 3.5 mm line out
Edge storage	SD/SDHC memory card slot (card not included) Support for recording to network share (Network Attached Storage or file server)
Operating conditions	**AXIS Q1602/Q1604:** 0 °C to 50 °C (32 °F to 122 °F); Humidity 10 - 85% RH (non-condensing) **AXIS Q1602-E/Q1604-E:** -30 °C to 50 °C (-22 °F to 122 °F) with PoE; down to -40 °C (-40 °F) with High PoE Arctic Temperature Control enables camera start-up at temperatures as low as -40 °C (-40 °F) with High PoE Humidity 10 - 100% RH (condensing)
Approvals	EN 55022 Class B, EN 61000-3-2, EN 61000-3-3, EN 61000-6-1, EN 61000-6-2, EN 55024, FCC Part 15 Subpart B Class B, ICES-003 Class B, VCCI Class B, C-tick AS/NZS CISPR 22, KC, EN 60950-1, IEC 60950-1 **AXIS Q1602-E/Q1604-E:** IEC 60529 IP66, NEMA 250 Type 4X, IEC 62262, IK10, IEC60950-22, IEC 60068-2-6, IEC 60068-2-27, EN 50121-4/IEC 62236
Weight	**AXIS Q1602/Q1604:** 0.6 kg (1.3 lb.) **AXIS Q1602-E/Q1604-E:** 3.1 kg (6.8 lb.)
Included accessories	Stand, connector kit, Installation Guide, Installation and Management Software CD, recording software and User Manual, Windows decoder 1-user license **AXIS Q1602-E/Q1604-E:** Wall mount bracket, sunshield

** This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (www.openssl.org)*

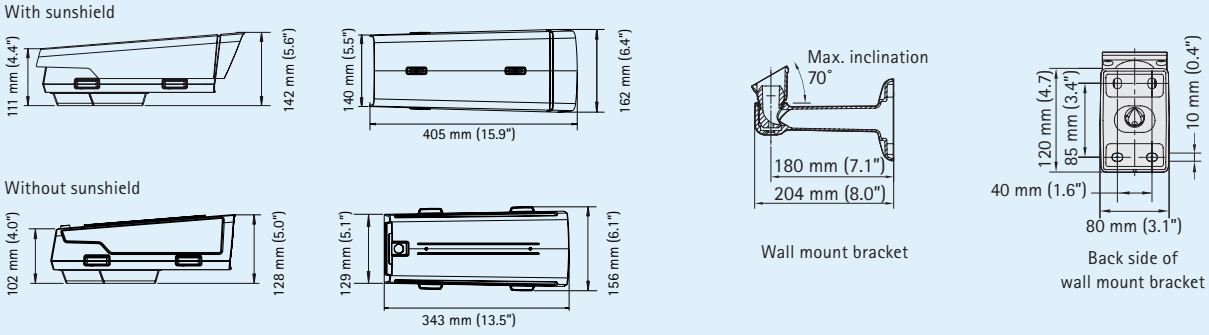
More information is available at www.axis.com

43933/EN/R5/1209

Dimensions: AXIS Q16 Network Cameras



Dimensions: AXIS Q16-E Network Cameras and wall bracket with internal cable channel



Optional accessories

AXIS T8120 Midspan 15 W 1-port

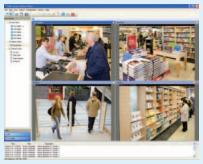
AXIS T81B22 DC 30 W Midspan

AXIS T8123 High PoE 30 W Midspan 1-port

AXIS T90A Illuminators

Lenses

AXIS T8414 Installation Display



For information on AXIS Camera Station and video management software from Axis' Application Development Partners, see www.axis.com/products/video/software/

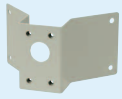
Optional accessories for outdoor models

Wall bracket accessories

Adapter plate

Pole mount

Corner mount



Ceiling brackets with ball joint

Column mount with ball joint

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